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SEMICONDUCTOR DEVICE (54) MANUFACTURE OF THIN FILM

(57) Abstract:

large crystal particle diameter and the an insulating substrate, is heat-treated by a method wherein an amorphous semiconductor thin film is formed on interface between oxide films, which without taking out in the atmosphere has a small interfacial level density, PURPOSE: To form a silicon film consisting of a silicon crystal of a

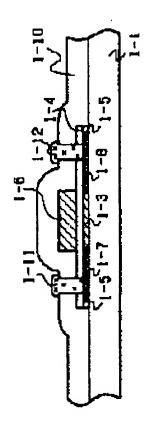
gate oxide film is formed and the thin to solid-phase grow and moreover, a film and the oxide film are patterned into an insular form in one photo

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whereby the surface of the film 1-2 is oxidized to form a gate oxide film 1-4 according to glow discharge and after grow the film 1-2 and after the gas is and the gate oxide film and the solidphoto process. Subsequently, the end film 1-2 deposited by decomposition substrate is installed in a chamber of (Si3H8) gas is introduced, an a-Si:H the temperature in the interior of the patterned into an insular form in one exhausted, oxygen gas is introduced phase grown Si film are etched by a chamber is heated up to solid-phase substituted for vacuum or inert gas, surface of the solid-phase grown Si oxidation method using the plasma containing monosilane (SiH4) gas, a plasma CVD device, mixed gas photolithography method and are CONSTITUTION: An insulating and glow discharge is performed, disilane (Si2H6) gas or trisilane the gas is exhausted, the air is film is oxidized by a plasma

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